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In the fall of 1964, 4,288 students were nominated for participation in the 1st annual competition of the National Achievement Scholarship Program for outstanding Negro students. The students were divided into 3 groups--Scholars, Finalists and Commended. The highest competition status group, the Scholars, were awarded 4-year college scholarships and the names of the other participants were circulated to US colleges and universities. In June 1966, 1 year after their expected date of graduation from high school, all of the participants were asked to complete a questionnaire dealing with their college experiences. The data were analyzed to assess the extent to which the program accomplished its dual objectives of encouraging talented Negro students to attend college and encouraging colleges to seek talented Negro students. Results showed that competition status was directly related to college success on all major indices: number of colleges soliciting applications, number of college acceptances, percent of enrollees in 4-year colleges, percent of students completing freshman year, percent of students planning to return to college, etc. Most of the differences between the accomplishments of higher and lower status groups were small because students in the lower status groups did well. Copies of this report may be obtained from the Research Division, National Merit Scholarship Corporation, 990 Grove Street, Evanston, Illinois 60201. (JS)

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NATIONAL MERIT SCHOLARSHIP CORPORATION

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John M. Stalnaker, President

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OUTSTANDING NEGRO HIGH SCHOOL STUDENTS: A ONE YEAR FOLLOWUP

Kenneth Burgdorf[1]

In the fall of 1964, all of the nation's secondary schools were invited by mail to nominate outstanding Negro students for participation in the first annual competition of the National Achievement Scholarship Program (NASP). A total of 4,288 students were nominated. A committee reviewed the application materials of these students and selected two subgroups, one of 1,958 Commended students and a second, more select group of 629 Finalists. In the final stage of the competition, a second committee selected a group of 224 Scholars from among the Finalists. These students were awarded four-year college scholarships ranging from $250 to $1,500 per year (depending on need). In the hope of facilitating the recognition of Negro students of outstanding academic aptitude a booklet containing the names, addresses and competition status of the participants in the three highest competition status groups (Scholar, Finalist, and Commended) was prepared and sent to the approximately 1,470 colleges and universities in the United States.

In June of 1966, at the end of their first year of college, a followup questionnaire was sent to each of the participants in the first NASP. This paper, an assessment of the Program's effects on the colleges and participants, is based on this followup data.[2]

Possible Sampling Biases

Table 1 presents the proportion of students returning the followup questionnaire as a function of sex and competition status. From this table, it may be seen that while nearly 70% of the total group of participants returned the questionnaire, the return rate was systematically related to both sex and

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[2] For a more detailed discussion of the 1965 NASP, see: Roberts, R. J., and Nichols, R. C. Participants in the National Achievement Scholarship Program for Negroes, NMSC Research Reports, 1966, 2, (2).

Table 1

Original Sample Size and Questionnaire Return Rate
by Sex and NASP Competition Status

	Competition Status Group				
	Scholar	Finalist	Commended	Nominated	Total
Males in original sample (N=)	101	174	711	653	1639
Females in original sample (N=)	123	231	1247	1048	2649
Male return rate (%)	100.0	67.2	65.1	57.9	64.6
Female return rate (%)	100.0	77.5	74.1	66.8	72.7
Total return rate (%)	100.0	73.1	70.8	63.4	69.6

competition status. The return rate was about 10% higher for women than for men in each of the three lowest status groups, and it increased with each increment of status, going from 63.4% for the Nominated group to 100% for the Scholar group.

Studies conducted on participants in the National Merit Scholarship Program have repeatedly indicated that it is the more successful, more achieving, more highly aspiring students who are overrepresented in samples where the return rate is substantially less than 100%. If a similar sampling bias is operative in the present study, and if positive relationships actually exist between competition status and achievement measures (enrollment in college, college grades, nonacademic accomplishments, etc.), it is likely that data from the present study will underestimate the true extent of group differences in achievement. Data relevant to this speculation will be presented later.

Success in College Entrance

Since the colleges were informed of the names, addresses, and competition status of the students in the Scholar, Finalist, and Commended groups, it might be expected that a major effect of NASP should have been to encourage colleges to seek applications for admission from these students. The mean number of application invitations should thus be larger for the top three groups than

for the Nominated group, and it should be positively related to status within the top three groups. As may be seen from the first row of Table 2, these expectations were confirmed. The Commended students received an average of more than three times as many invitations as did the Nominated students, and the Finalists and Scholars received at least 2.5 times more invitations than the Commendeds. The mean in Table 2 provide minimum estimates of the actual extent of differences between Scholar, Finalist, and Commended groups, however. Sixty-nine percent of the Scholars and Finalists, as compared to 4% of the Commendeds and 0.6% of the Nominees, reported receiving "12 or more" invitations, the

Table 2

Success in College Entrance by Sex and NASP Competition Status

	Scholar		Finalist		Commended		Nominated	
	M	F	M	F	M	F	M	F
N =	101	124	117	179	463	923	378	700
Mean Number of Colleges								
Inviting student's application	11.2	11.1	11.3	10.8	4.8	4.2	1.6	1.2
To which student applied	3.6	3.3	3.4	2.8	2.9	2.4	2.3	1.8
Accepting student	3.4	3.1	3.6	2.8	2.6	2.4	1.9	1.5
Percentages of Students								
Applying to no colleges	--	--	--	0.6	0.4	1.0	2.9	3.0
Accepted by no colleges	--	--	--	1.1	1.1	1.1	2.9	3.9
Enrolling in no college	--	--	0.9	1.1	2.2	3.4	7.7	10.7
Percentage of Students Enrolling								
In nonaccredited or foreign colleges	--	--	0.8	--	1.1	2.3	2.9	4.0
In 2-year public colleges	--	--	1.6	0.5	2.4	3.2	5.3	5.7
In 2-year private colleges	--	--	0.8	0.5	0.6	0.6	0.3	0.6
In 4-year public colleges	14.1	17.1	27.0	26.3	37.4	45.1	48.4	45.1
In 4-year private colleges	85.9	82.9	68.2	61.0	55.5	44.7	34.7	33.5
In first choice colleges	77.0	64.5	46.1	53.4	53.9	55.3	55.0	64.8

maximum allowed by the questionnaire format. In computing the group means, all students who checked this alternative were treated as having received 12.8 invitations--a conservative estimate.

Table 2 contains several other indices of the participants' success in entering college. There were slight but consistent sex differences favoring the men on most of these indices. In all groups the men applied to and were accepted by more colleges, and a greater proportion of men than women enrolled in private four-year colleges. Similarly, higher proportions of women than men applied to no college, were accepted by no college, enrolled in no college, or enrolled in public four-year colleges. For the Commended and Nominated groups, more women than men enrolled in nonaccredited, two-year public, or two-year private colleges. The one sex difference which does not fit with the others is that, except for the Scholar group, more women than men enrolled in their first choice college.

In all indices except enrollment in first choice college, success in college entrance was positively related to status. The largest differences were for enrollment in private four-year colleges, where the percentages increased in neat steps from 33.5% for female Nominees to 85.9% for male Scholars. A more sophisticated method of ranking colleges might be expected to yield even larger group differences, especially between the Scholars and Finalists. Consistent with this hypothesis, it may be noted that of the four groups, the Scholars were most successful at enrolling in their first choice colleges while the Finalists were least successful. A possible explanation of this finding is that both Scholars and Finalists wanted to attend prestigeous colleges, but for financial or other reasons, many more Scholars than Finalists were able to do so.

Success in College

To the extent that NASP accomplished its goal of encouraging high aptitude Negro students to seek a college education, participants in the top three

groups should be relatively successful in college--they should tend to obtain satisfactory grades, they should tend to complete their freshman year and plan to return as sophomores, etc. Further, success should be positively related to status <u>within</u> the top three groups, the Scholars having received more "encouragement" than the Finalists, who in turn received more than the Commendeds. The data relevant to these issues are presented in Table 3, where it may be seen that success, as expected, was positively related to competition status for all indices. On the first general index, the percentage of students completing their freshman college year in the spring of 1966 ranged from 84.8% for female Nominees to 99.0% for male Scholars. The percentages increased uniformly with status, both within and across sex categories. The female Finalists provided the sole exception to this rule by slightly exceeding the female Scholars. Without exception, the same positive relationship between success and status

Table 3

Success in College by Sex and NASP Competition Status*

	Scholar		Finalist		Commended		Nominated	
	M	F	M	F	M	F	M	F
N =	101	124	117	179	463	923	379	700
Did not enroll in 1965	--	--	0.9	1.1	2.2	3.4	7.7	10.7
Did not complete 1965 school year	1.0	3.2	3.4	1.7	5.0	4.0	5.0	4.6
Completed 1965 school year	99.0	96.8	95.7	97.1	92.8	92.6	87.2	84.8
Will not enroll in 1966	2.0	0.8	0.9	3.4	1.9	3.0	4.2	5.7
May not enroll in 1966	--	2.4	1.7	3.4	3.7	5.3	6.3	7.2
Will begin college in 1966	--	--	--	--	0.6	1.3	3.2	3.3
Will return to college in 1966	98.0	96.7	97.4	93.3	93.7	90.4	86.3	83.8
Freshman Grades								
D-F	4.0	4.1	4.5	4.6	8.5	4.6	6.9	5.4
C	43.5	40.9	41.0	41.9	56.8	47.2	55.7	55.2
B	43.5	45.1	45.5	48.8	32.5	42.7	34.8	37.2
A	9.1	9.8	8.9	4.5	2.2	5.6	2.4	2.3
Mean grades	5.6**	5.8	5.7	5.8	5.0	5.6	5.1	5.3

* Data in percentages.
** Computed on a scale where C=4, C+=5, B=6.

held for the percentage of students definitely planning to return to college in the fall of 1966. The percentages ranged from 83.8% for female Nominees to 98.0% for male Scholars. In these first two comparisons, a slight but consistent sex difference is apparent, suggesting that the men are more successful at remaining in college than are the women. It may also be noted that the largest "jump" between adjacent groups on all of the enrollment variables occurred between the Nominated and Commended groups. These two groups are probably most different from one another (among the three pairs of adjacent groups) in terms of both academic aptitude and "encouragement" received from NASP.

Turning to grades, the proportion of students receiving average freshman year grades of D or F tended to decrease with increasing status, while the proportions receiving A's tended to increase as a function of status. On these comparisons, the major discontinuity occurred between the Commended and Finalist groups: the Scholars and Finalists received comparable grades, which tended to be distinctly higher than those obtained by the Commendeds and Nominees. A consistent sex difference in mean grade is also apparent, with the women obtaining the higher grades within each group. Thus, it appears that, while the men tend to be more successful at remaining in college, the women tend to perform at the higher level in their course work.

Again, it should be emphasized that it is the direction, rather than the absolute size, of the differences, which is important in these comparisons. Any number of uncontrolled variables (sampling biases, reporting biases, difficulty of course work, etc.) may be systematically related to competition status in such a way as to reduce the magnitude of the differences between groups.

Nonacademic Achievements

The 1965 NASP participants were asked to indicate the number of achievements they attained in a variety of areas (art, music, leadership, etc.) during

the academic year following their graduation from high school. Generally, there were two types of items within each area. One referred to specific accomplishments or activities which were not necessarily indicative of outstanding ability (e.g., "completion of unpublished poems, plays, or essays"), while the other referred to achievements which were publicly recognized (e.g., "publication or acceptance for publication of stories, poems, plays, or essays"). For the purposes of the present analysis, the reported achievements of both types within each area were simply summed.

The mean number of achievements are reported in Table 4, by sex and competition status. It may be seen from this table that the sex and status differences tended to be small and inconsistent. In all of the areas except athletics (for the men) and leadership, the majority of respondents reported no achievements. There were slight but consistent sex differences favoring the women in the areas of writing and speaking/drama, but the men tended to be the more achieving in music. The largest sex differences, as might be expected, were in athletics, where the men were the more active. This difference could account for the consistent sex difference in the mean number of total achievements.

Table 4

Mean Number Nonacademic Achievements by Sex and Competition Status

	Scholar		Finalist		Commended		Nominated	
	M	F	M	F	M	F	M	F
N =	92	111	126	190	463	922	378	698
Leadership	1.04	1.25	1.33	1.34	1.07	1.06	1.11	1.07
Science	.15	.16	.19	.20	.16	.11	.20	.14
Art	.12	.17	.15	.15	.18	.15	.17	.08
Music	.62	.33	.73	.44	.49	.49	.70	.53
Writing	.86	1.01	.44	.86	.55	.71	.57	.58
Speaking/Drama	.36	.37	.30	.45	.31	.50	.52	.51
Athletics	1.62	.28	1.53	.50	1.43	.41	1.10	.41
Total	5.64	4.14	5.10	4.71	4.70	4.12	5.03	3.64

The status group differences tended to be smaller and less consistent than the sex differences. Several were even in favor of the lower status groups. Direct comparison of the means is risky, since the distribution standard deviations vary with status group and area of achievement. In order to facilitate interpretation, comparisons of these means were made in terms of z-scores. Of the 96 such comparisons, only 13 were significant (at $p < .05$). Among the women, the Finalists reported significantly more achievements in leadership than either the Commendeds or the Nominees, the Scholars reported more achievements in writing than either of the other three groups, and the Finalists reported a greater number of total achievements than the Nominees. These differences were all in the expected direction--the higher status groups reporting more achievements than the lower status groups. The only significant relationship in the "wrong" direction was that between Scholar and Finalist women in athletics, the Finalists being the more active. In the areas of science, art, music, and speaking/drama, none of the comparisons among the women were significant.

For the men, the Scholars reported more achievements in writing than did the Finalists, and the Nominees were exceeded by each of the three other groups in athletic achievement. The relationships were somewhat reversed in the area of speaking/drama, where the Nominees were more achieving than either the Finalists or the Commendeds. In the areas of leadership, science, art, and music, and in total number of achievements, there were no significant group differences for the men.

Second Followup

In order to obtain an estimate of the extent to which the above data were affected by sampling bias, an abbreviated version of the followup questionnaire was constructed and mailed in December of 1967 to a sample of students who had

not responded to the original followup questionnaire. Twenty-five male and 25 female nonrespondents were randomly selected from each of the status groups for which the original return rate was less than 100%, yielding a total sample of 150 students. Every effort was made to secure as large a response as possible to this second followup: the questionnaire was sent via registered mail to the student's last known address; a post card reminder was sent three days later; and finally, a second questionnaire was sent via special delivery mail. Even so, 31 questionnaires were not delivered (e.g., because the family had moved without leaving a forwarding address), and an additional 50 students did not return completed questionnaires. However, since many students were not residing at their high school addresses, an indeterminant and probably substantial percentage of the second-time nonrespondents may not have received the questionnaire. The return rate data are summarized in Table 5, where it may be seen that, for students whose questionnaires were deliverable, the overall return rate was 58%.

Table 5

Second Followup Return Rate Data, by Sex and NASP Competition Status*

	Finalist		Commended		Nominated		Total
	M	F	M	F	M	F	
N not located	4	7	5	7	2	6	31
Percent of located sample which responded	67	61	60	72	48	42	58

* Original N = 25 for each group. Total N = 150.

Table 6 presents the major college success data for the sample of respondents to the second followup. For comparison purposes, data from the original respondents are reproduced in Table 6 (from tables 2 and 3), and, using data from the respondents to the second followup as an estimation for the entire sample of original nonrespondents, extrapolations to the entire group of 1,965

NASP participants are also presented. From Table 6, it may be seen that, although the N's for each group were small, the respondents to the second questionnaire tended to deviate from the original respondents only slightly and in the expected direction. There were only two large differences between the first followup and the second followup respondents: the percentage of male Commended

Table 6

Major Indicators of College Success for Original Nonrespondents, Original Respondents, and Extrapolated Total Sample, by Sex and Competition Status

		Scholar		Finalist		Commended		Nominated	
		M	F	M	F	M	F	M	F
Applied to no colleges in 1965 (percent)	N*			0	0	0	0	0	12
	R*	0	0	0	1	0	1	3	3
	T*			0	1	0	1	2	6
Accepted by no colleges in 1965 (percent)	N			0	0	0	0	18	12
	R	0	0	0	1	1	1	3	4
	T			0	1	1	1	9	7
Enrolled in no colleges in 1965 (percent)	N			0	0	8	8	18	25
	R	0	0	1	1	2	3	8	11
	T			1	1	4	4	12	16
Completed freshman year (percent)	N			93	100	67	92	73	75
	R	99	97	96	97	93	93	87	85
	T			95	98	84	93	81	82
Did not enroll in 1966 (percent)	N			0	0	8	15	18	12
	R	2	3	3	7	6	8	10	15
	T			2	6	7	10	13	14
Began college in 1966 (percent)	N			0	0	8	0	9	12
	R	0	0	0	0	1	1	3	3
	T			0	0	3	1	6	6
Returned to college in 1966 (percent)	N			100	100	83	85	73	75
	R	98	97	97	93	94	90	86	84
	T			98	94	90	89	81	81
Enrolled in first choice college (percent)	N			93	45	67	69	44	57
	R	77	64	46	53	54	55	55	65
	T			61	51	58	59	50	62
Freshman year grade ($\bar{X}$)	N			5.4	6.0	4.8	6.3	4.0	4.3
	R	5.6**	5.8	5.7	5.8	5.0	5.6	5.1	5.3
	T			5.6	5.8	4.9	5.8	4.6	5.0

* N = Nonrespondents to first followup who responded to second followup; R = Respondents to first followup, data from tables 2 and 3; and T = Extrapolated total sample, N being used to estimate data for entire sample of original nonrespondents.

** Computed on a scale where C = 4, C+ = 5, B- = 6, etc.

students in the second followup group who completed their freshman year of college was substantially smaller than the corresponding percentage of the first followup sample (67% as compared to 93%), and the percentage of male Finalists who enrolled in their first choice college was considerably larger (93% vs. 46%). In both instances, it seems likely that the disparity was artifactual, the result of chance fluctuation in statistics computed from the relatively small second followup samples. In general, however, the results were quite consistent: relative to respondents to the first followup, respondents to the second followup were less successful in entering and in remaining in college. As expected, the differences between the first and second followup samples were negatively related to competition status, the largest differences occurring between Nominated groups and the smallest differences occurring between Finalists groups. Although the differences in college success between status groups were increased in nearly all indices by using the second followup data to extrapolate to the total sample of NASP participants, the changes were not large and do not alter the original substantive conclusions. For example, although the Nominated students who responded to the second followup were distinctly less successful in college than the Nominated students who responded to the first followup, they could by no means be characterized as unsuccessful: 82% of the men and 87% of the women in this group were in college in 1966 either as freshmen or as sophomores.

Summary of Results

To the extent that the 1965 NASP accomplished its objectives, success in college entrance and achievement in college should have been positively related to competition status and, in absolute terms, students in the highest competition status groups should have been highly successful in college entrance and in college achievement. The data presented above indicate that such was the

case. Competition status was directly related to college success on all major indices: number of colleges soliciting applications, number of college acceptances, percent of students enrolling in 4-year colleges, percent of students completing their freshman year, percent of students planning to return to college in 1966, etc. Results from the followup of original nonrespondents support these findings, and indicate that the actual differences among competition status groups were even larger than the initial analyses suggest. More importantly, the absolute level of success of the higher competition status groups was more than satisfactory. For example, all of the Scholars enrolled in 4-year colleges, 70% of them enrolled in their first choice college, and 97% of them planned to return to college in 1966.

It should also be emphasized that the lower competition status groups, while less successful than the higher competition status groups, were by no means unsuccessful in college. In the Nominated group, which received no real encouragement from NASP, only an estimated 8% were not accepted by any college and only 14% did not enroll in college in 1965; 81% completed their freshman year in June of 1966 and 87% enrolled in college for the 1966-1967 academic year, either as sophomores or as freshman. These figures are well above the national average for both white and nonwhite students,[3] and argue for the validity of the procedure by which NASP participants were nominated.

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[3] See Coleman, J. S. Equality of educational opportunity. Washington, D. C.: U. S. Government Printing Office, 1966, p. 451.